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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,986	03/31/2004	Brian J. Buck	04-282	8181

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MBHB/TRADING TECHNOLOGIES  
300 SOUTH WACKER DRIVE  
SUITE 3200  
CHICAGO, IL 60606

EXAMINER
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CHOW, JEFFREY J

ART UNIT	PAPER NUMBER
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2628

DATE MAILED: 08/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/814,986

Applicant(s)

BUCK, BRIAN J.

Examiner

Jeffrey J. Chow

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

This is office action is made final in response to arguments filed 11 July 2006 to claims 1 – 35, which were amended on 31 March 2006.

Applicant's arguments, see Remarks, filed 11 July 2006, with respect to the rejection(s) of claims 1 – 3, 5 – 17, 19 – 23, 25, 26, and 28 – 35 under Gould (US 6,219,052) and Duquette (US 2005/0228735) and claims 4, 18, and 27 under Gould (US 6,219,052) and Duquette (US 2005/0228735) and Tufte ("The visual Display of Quantitative Information") have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made to claims 1 – 3, 5 – 17, 19 – 23, 25, 26, and 28 – 35 under Gould (US 6,219,052) and Duquette (US 2005/0228735) and Holzman et al. (US 6,064,401) and claims 4, 18, and 27 under Gould (US 6,219,052) and Duquette (US 2005/0228735) and Holzman et al. (US 6,064,401) and Tufte ("The visual Display of Quantitative Information").

Applicant argues that Gould and Duquette do not teach the limitation, "wherein upon receiving a new data in the data series, displaying the new data in the first axis region having a first linear scale and shifting data previously displayed in the first axis region to the second axis region for display along a second linear scale. Duquette discloses a trader workstation begin processing of the current real-time market data coming from the exchange server 710 (paragraph 69), which effectively takes in new data and adds it to the first region. Holzman discloses a lens that zooms in a portion of a graph and the lens being able to slide, effectively shift data from one region to another in either directions (column 6, line 33 – column 7, line 7 and Figure 7), which

Art Unit: 2628

effectively shifts data from one region to another when the lens is sliding. In other words, Holzman has a first region where the region is not zoomed in, a second region where the region is zoomed in. When the user starts to slide the lens from right to left, the data in the first region instantaneously become a previous data and depends on how much the user slides the lens to the left, the data from the first region is shifted into the second region. The two regions have different linear scale in where the two regions are adjacent and continuous. Therefore, in combination of Gould, Duquette, and Holzman reads on claims 1, 17, and 25. Gould teaches the two linear and contiguous regions in where the regions are defined by the division of an axis. Duquette teaches updating the graph in where new data are inserted in the first region. Holzman discloses a sliding lens that magnifies a portion of the area where the sliding lens effectively shifts previous data in the first region into the second region.

Applicant argues the combined references would not be analogous as it destroys the purpose of Gould's system (pages 9 and 10). Gould system allows the user to magnify onto important information by users choice. Holzman allows user to magnify onto important information by users choice. The differences between Gould and Holzman is that Gould uses points in where the users use these points to magnify a portion of the graph as Holzman uses a sliding lens in where the user use the sliding lens to magnify a portion of the graph and the users are able to increase and decrease the length of the sliding lens. The intended use for both Gould's and Holzman's system is for users to magnify on important data. Yet, the invention would be combinable to where the edge of the sliding lens correspond to the points on the graph in where the sliding lens would effectively slide the points on the graph in where data from one

region would be shifted in the other region, effectively displaying important information to users desire based on the movement of the sliding lens.

Adding simple modification to Gould's system such as adding new data to the graph would not destroy Gould's system as Gould's system still function in the way that Gould's system zooms in at certain portions of the graph based on user preferences. Add a sliding lens to Gould's system in where the salient points would be moved along corresponding to the edges of the sliding lens would not destroy Gould's system as Gould's system still function in the way that Gould's system zooms in at certain portions of the graph based on user preferences.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 – 3, 5 – 17, 19 – 23, 25, 26, and 28 – 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould (US 6,219,052) in view of Duquette (US 2005/0228735) and Holzman et al. (US 6,064,401).

Regarding independent claim 1, Gould discloses a computerized system 10, comprising a console 11 containing a CPU 12, memory 13, I/O circuitry 14 connected to a monitor 15 having a display screen 16, and control devices in the form of keyboard 17 and a mouse 18 (lines 19 – 23, column 1). Gould also discloses a computerized system provides the user with means to

Art Unit: 2628

shrink less important or less significant portions of the information displayed, with the result of magnifying the portions that the user deems significant (lines 14 – 18, column 2) where the information displayed is in the form of video, sound, graphics or text while maintaining a general view of the information (lines 63 – 67, column 1) and where the sound graph in Figure 8 shows a time axis being divided into different linear and continuous regions 51 46 and Figure 10 clearly shows a time axis being divided into different linear and continuous regions and where the regions that are expanded and shrunk creates a linear region in each region and where adjacent regions are non-linear and continuous (column 5, lines 26 – 64, and Figures 8 – 10), which reads on the claimed at least one axis divided into a plurality of axis regions comprising at least a first axis region and a second axis region, wherein each of the first axis region and the second axis region uses a different linear scale, and wherein the plurality of axis regions forms a continuous non-linear scale on the at least one axis. Gould discloses data being displayed for the sound file (Figure 8), which reads on the claimed a chart displayed in relation to the plurality of axis regions, wherein the chart displays the data series, wherein the data series is plotted in each axis region based on a different linear scale corresponding to each respective axis region. Gould did not expressly disclose new data and shifting old data from one region to another because of new data. Gould did disclose that a user can play through a portion of a recorded sound file and will play at normal speed through the marked segments 51, but will fast-forward at (for example) twice the normal speed through the unmarked segments 52 and in where the marked segments 51 being expanded in time and the unmarked segments 52 being condensed (column 5, lines 43 – 50 and Figure 8). Duquette discloses a trader workstation 714 that is able to save market data previously received from the exchange server 710 and loads the historical data first and then

Art Unit: 2628

begin processing of the current real-time market data coming from the exchange server 710 (paragraph 69). Holzman discloses a lens that zooms in a portion of a graph and the lens being able to slide, effectively shift data from one region to another in either directions (column 6, line 33 – column 7, line 7 and Figure 7). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Gould's system by running and displaying real-time data in a exchange environment and updating when new data is available from an exchange server and shifting old data from one region to another in either directions. One would be motivated to do so because updating real-time data to a graph when new data is available allows users to see up-to-date information and having a sliding lens allows users to view any portion of the data the user desires.

Regarding dependent claim 2, Gould discloses where the sound graph in Figure 8 shows a time axis being divided into different linear and continuous regions 51 46 and Figure 10 clearly shows a time axis being divided into different linear and continuous regions and data being displayed for the sound file (Figure 8), which reads on the claimed each linear scale is a linear time scale and the claimed data series comprises a time data series.

Regarding dependent claim 3, Gould discloses where the sound graph in Figure 8 shows a time axis being divided into different linear and continuous regions 51 46 and Figure 10 clearly shows a time axis being divided into different linear and continuous regions, which reads on the claimed scale resolution comprises a time scale resolution.

Regarding dependent claim 5, Gould discloses a computerized system 10 that is user customizable to display information of high level of detail scale resolution in one section and to display information of low level of detail scale resolution in other sections (column 2, lines 13 –

21 and Figures 8 – 10), which reads on the claimed plurality of axis regions comprises a first axis region that displays a portion of the data series using a high level of detail scale resolution, and wherein other axis regions of the plurality of axis regions use progressively lower levels of detailed scale resolutions.

Regarding dependent claim 6, Duquette discloses a trader workstation 714 that can load historical data and begin processing current real-time market data coming from the exchange server 710 (paragraph 69 and Figure. 7). The combination of Gould's and Duquette's system mention above reads on the claimed first axis region displays a portion of the data series corresponding to a more recent time period than a time period corresponding to the second axis region.

Regarding dependent claim 7, Gould discloses a computerized system 10 is user customizable to select portion of the data series by being able to expand and shrink sections of the plot (column 2, lines 13 – 21 and Figures 8 – 10), which reads on the claimed first axis region displays a user-selected portion of the data series.

Regarding dependent claim 8, Gould discloses a computerized system 10 is user customizable to create a plurality of axis regions by being able to expand and shrink sections of the plot (column 2, lines 13 – 21 and Figures 8 – 10), which reads on the claimed plurality of axis regions displayed in relation to the axis scale is user customizable.

Regarding dependent claim 9, Gould discloses computerized system 10 is user customizable to modify the scale resolution by being able to expand and shrink sections of the plot (column 2, lines 13 – 21 and Figures 8 – 10), which reads on the claimed scale resolutions corresponding to the plurality of axis regions are user customizable.



Regarding dependent claim 10, Duquette discloses a trader workstation 714 that is able to save market data previously received from the exchange server 710 and loads the historical data first and then begin processing of the current real-time market data coming from the exchange server 710 (paragraph 69), which reads on the claimed data series comprises a data series associated with a tradable object being traded at an electronic exchange, and wherein the data series is being dynamically updated based on updates received from an electronic exchange.

Regarding dependent claim 11, Duquette discloses a bar chart 300, where each bar 310 represents a range of trading prices over an interval, and additional markings 312, 314, may represent another parameter, such as opening and closing prices (paragraphs 9 and 104 and Figures 3 and 9), which reads on the claimed chart displays a plurality of data series.

Regarding dependent claim 12, Duquette discloses displaying range values 312, 314 on a bar graph 300 (paragraphs 9 and 104 and Figures 3 and 9), which reads on the claimed bar chart comprises a plurality of bars associated with a plurality of time periods, and wherein each bar shows at least a range of values corresponding to a parameter related to a tradable object during a time period associated with each bar.

Regarding dependent claim 13, Duquette discloses displaying range values 312, 314 on a bar graph 300 and in where the range values may represent opening and closing prices and that every bar 910 indicates the price range of each auction event (paragraphs 9 and 104 and Figures 3 and 9), which reads on the claimed each bar further displays an opening value and a closing value corresponding to the parameter related to the tradable object during the time period associated with each bar.

Regarding dependent claim 14, Duquette discloses displaying range values 312, 314 on a bar graph 300 and in where the range values may represent opening and closing prices and that every bar 910 indicates the price range of each auction event (paragraphs 9 and 104 and Figures 3 and 9), which reads on the claimed parameter related to the tradable object comprises a trade price corresponding to the tradable object.

Regarding dependent claim 15, Duquette discloses the label “VOLUME” in Figure 3 and the dot 912 on the auction bar indicates the volume weighted average price (paragraphs 9 and 104 and Figures 3 and 9), which read on the claimed parameter related to the tradable object comprises a traded volume.

Regarding dependent claim 16, Duquette discloses a trader workstation 714 that is able to save market data previously received from the exchange server 710 and loads the historical data first and then begin processing of the current real-time market data coming from the exchange server 710 (paragraph 69), which reads on the claimed values displayed in relation to the bar chart are dynamically updated based on data updates being received from the electronic exchange.

Regarding independent claim 17, Gould discloses a computerized system 10, comprising a console 11 containing a CPU 12, memory 13, I/O circuitry 14 connected to a monitor 15 having a display screen 16, and control devices in the form of keyboard 17 and a mouse 18 (lines 19 – 23, column 1). Gould also discloses a computerized system provides the user with means to shrink less important or less significant portions of the information displayed, with the result of magnifying the portions that the user deems significant (lines 14 – 18, column 2) where the information displayed is in the form of video, sound, graphics or text while maintaining a general

Art Unit: 2628

view of the information (lines 63 – 67, column 1) and where the sound graph in Figure 8 shows a time axis being divided into different linear and continuous regions 51 46 and Figure 10 clearly shows a time axis being divided into different linear and continuous regions, which reads on the claimed time axis divided into a plurality of time axis regions comprising at least a first time axis region and a second time axis region, wherein each of the first time axis region and the second time axis region uses a different linear time scale, wherein each of the first time axis region and the second time axis regions uses a different linear time scale, and wherein the plurality of time axis regions forms a continuous non-linear time scale on the time axis. Gould did not expressly disclose displaying data series that is tradable objects. Gould also did not expressly disclose new data and shifting old data from one region to another because of new data. Gould discloses data being displayed for the sound file (Figure 8) and that a user can play through a portion of a recorded sound file and will play at normal speed through the marked segments 51, but will fast-forward at (for example) twice the normal speed through the unmarked segments 52 and in where the marked segments 51 being expanded in time and the unmarked segments 52 being condensed (column 5, lines 43 – 50 and Figure 8). Duquette discloses a trader workstation 714 that is able to save market data previously received from the exchange server 710 and loads the historical data first and then begin processing of the current real-time market data coming from the exchange server 710 (paragraph 69). Holzman discloses a lens that zooms in a portion of a graph and the lens being able to slide, effectively shift data from one region to another in either directions (column 6, line 33 – column 7, line 7). It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Gould's system by running and displaying real-time data in a exchange environment and updating when new data is available from an

exchange server and shifting old data from one region to another in either directions. One would be motivated to do so because updating real-time data to a graph when new data is available allows users to see up-to-date information and having a sliding lens allows users to view any portion of the data the user desires.

Regarding dependent claims 19 – 22, claims 19 – 22 are similar in scope as to claims 5 and 12 – 14, thus the rejections for claims 5 and 12 – 14 hereinabove is applicable to claims 19 – 22.

Regarding dependent claim 23, Duquette discloses the label “VOLUME” in Figure 3 and the dot 912 on the auction bar indicates the volume weighted average price (paragraphs 9 and 104 and Figures 3 and 9), which read on the claimed parameter comprises a traded quantity associated with the tradable object.

Regarding independent claims 25 and 26, claims 25 and 26 are similar in scope as to claim 17, thus the rejections for claim 17 hereinabove is applicable to claims 25 and 26.

Regarding dependent claims 28 – 35, claims 28 – 35 are similar in scope as to claims 5, 7 – 10, 12, 14, and 15, thus the rejections for claims 5, 7 – 10, 12, 14, and 15 hereinabove are applicable to claims 28 – 35.

Claims 4, 18, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould (US 6,219,052) in view of Duquette (US 2005/0228735) and Holzman et al. (US 6,064,401) and Tufte (“The Visual Display of Quantitative Information”).

Regarding dependent claims 4, 18, and 27, Gould nor Duquette expressly disclose the plurality of axis regions use at least two of a year-based time frame, a quarter-based timeframe, a

Art Unit: 2628

month-based timeframe, a week-based timeframe, a day-based timeframe, and a second-based timeframe. Tufte discloses a bar graph that has two time regions that shoes the current prices of oil and the predicted increase of oil. Tufte also discloses one of the time region being linear in a year-base timeframe and the other time region being linear in a quarter-base timeframe (page 61). Duquette discloses time series data being in intervals from tens of seconds, to minutes, hours, days, months or years (paragraph 9). It would have been obvious to one of ordinary skills in the art at the time of the invention to modify the combination of Gould's and Duquette's systems displaying tradable object at different time intervals of all possibilities and combinations in any order of at least two of a year-based time frame, a quarter-based timeframe, a month-based timeframe, a week-based timeframe, a day-based timeframe, and a second-based timeframe. One would be motivated to do so because this gives users flexibility to broadly and specifically view data of interests within reasonable time scales.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gould (US 6,219,052) in view of Duquette (US 2005/0228735) and Rao (US 6,085,202).

Regarding dependent claim 24, Roa discloses a variable zoom level of having three-level of DOI and in where the largest focal cell represents the highest level of interests, intermediate-sized focal cells for the second level of interest, and the smallest context or non-focal, cells of the third level of interest and this can be applied to any axis or to both columns and rows (column 23, lines 25 – 40, column 24, lines 11 – 28 and Figures 7 and 9). It would have been obvious to one of ordinary skills in the art at the time of the invention to modify the combination of Gould's and Duquette's systems by having a second axis in relations to the time axis and in where the

second axis has the same functionality of characteristics as the time axis. One would be motivated to do so because this gives users the flexibility to accurately zoom and focus to a time and region of interests.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey J. Chow whose telephone number is (571)272-8078. The examiner can normally be reached on Monday - Friday 10:00AM - 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ulka Chauhan can be reached on (571)-272-7782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2628

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JJC

  
ULKA CHAUHAN  
SUPERVISORY PATENT EXAMINER